EQUATION 13-1
Target UA_t

$$UA_t = U_{rat}A_{rat} + U_{ograt}A_{ograt} + U_{ort}A_{ort} + U_{ogort}A_{ogort} + U_{wt}A_{wt} + U_{vgt}A_{vgt} + U_{dt}A_{dt} + U_{ft}A_{ft} + F_{st}P_{st} + U_{bgwt}A_{bgwt}$$

Ua_t = The target combined specific heat transfer of the gross roof/ceiling assembly, exterior wall and floor area.

Where:

U_{rat} = The thermal transmittance value for roofs over attics found in Table 13-1 or 13-2.

U_{ograt} = The thermal transmittance for overhead glazing found in Table 13-1 or 13-2 which corresponds to the proposed total glazing area as a percent of gross exterior wall area.

U_{ort} = The thermal transmittance value for other roofs found in Table 13-1 or 13-2.

U_{ogort} = The thermal transmittance for overhead glazing found in Table 13-1 or 13-2 which corresponds to the proposed total glazing area as a percent of gross exterior wall area.

U_{wt} = The thermal transmittance value for opaque walls found in Table 13-1 or 13-2.

U_{vgt} = The thermal transmittance value for vertical glazing found in Table 13-1 or 13-2 which corresponds to the proposed total glazing area as a percent of gross exterior wall area.

U_{dt} = The thermal transmittance value for opaque doors found in Table 13-1 or 13-2.

U_{ft} = The thermal transmittance value for floors over unconditioned space found in Table 13-1 or 13-2.

F_{st} = The F-factor for slab-on-grade and radiant slab floors found in Table 13-1 or 13-2.

U_{bgwt} = The thermal transmittance value for opaque walls found in Table 13-1 or 13-2.

A_{dt} = The proposed opaque door area, A_d.

A_{ft} = The proposed floor over unconditioned space area, A_f.

P_{st} = The proposed lineal feet of slab-on-grade and radiant slab floor perimeter, P_s.

A_{bgwt} = The proposed below grade wall area, A_{bgw}.

and;

if the total amount of glazing area as a percent of gross exterior wall area does not exceed the maximum allowed in Table 13-1 or 13-2:

A_{rat} = The proposed roof over attic area, A_{ra}.

A_{ograt} = The proposed overhead glazing area in roofs over attics, A_{ogra}.

A_{ort} = The proposed other roof area, A_{or}.

A_{ogort} = The proposed overhead glazing area in other roofs, A_{ogor}.

A_{wt} = The proposed opaque above grade wall area, A_w.

A_{vgt} = The proposed vertical glazing area, A_{vg}.

or;

if the total amount of glazing area as a percent of gross exterior wall area exceeds the maximum allowed in Table 13-1 or 13-2:

A_{rat} = The greater of:
the proposed roof over attic area, and
the gross roof over attic area minus A_{ograt}.

A_{ograt} = The lesser of:
proposed overhead glazing area in roofs over attics, and
the maximum allowed glazing area from Table 13-1 or 13-2.

A_{ort} = The greater of:
the proposed other roof area, and
the gross other roof area minus A_{ogort}.

A_{ogort} = The lesser of:
the proposed overhead glazing area in other roofs, and
the maximum allowed glazing area from Table 13-1 or 13-2 minus A_{ograt}.

A_{wt} = The greater of:
proposed opaque above grade wall area, and
the gross exterior above grade wall area minus A_{dt} minus A_{vgt}.

A_{vgt} = The lesser of:
the proposed vertical glazing area, and
the maximum allowed glazing area from Table 13-1 or 13-2 minus A_{ograt} minus A_{ogort}.